

FILE 'HOME' ENTERED AT 17:09:31 ON 21 JUN 2002

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=> e sessler j/au

E1	2	SESSLER HELENE/AU
E2	3	SESSLER I/AU
E3	5 -->	SESSLER J/AU
E4	1	SESSLER J C/AU
E5	3	SESSLER J G/AU
E6	26	SESSLER J L/AU
E7	1	SESSLER JANATHAN/AU
E8	1	SESSLER JOHN/AU
E9	1	SESSLER JOHN C/AU
E10	1	SESSLER JOHN G/AU
E11	1	SESSLER JOHNATHAN L/AU
E12	2	SESSLER JONATHAN/AU

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E13	271	SESSLER JONATHAN L/AU
E14	1	SESSLER JONATHAN LAWRENCE/AU
E15	1	SESSLER M/AU
E16	2	SESSLER M J/AU
E17	1	SESSLER MARGOT/AU
E18	1	SESSLER MAVRO/AU
E19	2	SESSLER MICHAEL J/AU
E20	1	SESSLER MICHAEL JOSEPH/AU
E21	1	SESSLER N/AU
E22	8	SESSLER NELSON E/AU
E23	2	SESSLER PIUS/AU
E24	1	SESSLER R E/AU

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5	"SESSLER J"/AU
26	"SESSLER J L"/AU
1	"SESSLER JOHNATHAN L"/AU
2	"SESSLER JONATHAN"/AU
1	"SESSLER JONATHAN LAWRENCE"/AU

L1 35 "SESSLER J"/AU OR "SESSLER J L"/AU OR "SESSLER JOHNATHAN L"/AU
OR "SESSLER JONATHAN"/AU OR "SESSLER JONATHAN LAWRENCE"/AU

=> s l1 or e13

271 "SESSLER JONATHAN L"/AU

L2 306 L1 OR "SESSLER JONATHAN L"/AU

=> s l2 and radiation

549786 RADIATION

L3 27 L2 AND RADIATION

=> d bib

L3 ANSWER 1 OF 27 CA COPYRIGHT 2002 ACS

AN 136:334128 CA

TI Texaphyrins: synthesis and development of a novel class of therapeutic
agents

AU Mody, Tarak D.; Fu, Lei; ***Sessler, Jonathan L.***

CS Pharmacyclics, Inc., Sunnyvale, CA, USA

SO Progress in Inorganic Chemistry (2001), 49, 551-598

CODEN: PIOCAR; ISSN: 0079-6379

PB John Wiley & Sons, Inc.

DT Journal; General Review

LA English

RE.CNT 161 THERE ARE 161 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> e darren m/au

E1 1 DARRELL VAN CAMPEN/AU

E2 1 DARRELMANN K GR/AU

E3 0 --> DARREN M/AU

E4 1 DARREN STUART J/AU

E5 1 DARRES MICHEL/AU

E6 1 DARRET DANIELE/AU

E7 1 DARRET DANIELLE/AU

E8 1 DARRET GEORGES/AU

E9 1 DARREYE ANGELINA/AU

E10 1 DARRIBERE C/AU

E11 4 DARRIBERE CYRIL/AU

E12 6 DARRIBERE T/AU

=> d l3 bib ab 1-27

L3 ANSWER 1 OF 27 CA COPYRIGHT 2002 ACS

AN 136:334128 CA

TI Texaphyrins: synthesis and development of a novel class of therapeutic agents

AU Mody, Tarak D.; Fu, Lei; ***Sessler, Jonathan L.***

CS Pharmacyclics, Inc., Sunnyvale, CA, USA

SO Progress in Inorganic Chemistry (2001), 49, 551-598

CODEN: PIOCAR; ISSN: 0079-6379

PB John Wiley & Sons, Inc.

DT Journal; General Review

LA English

AB A review of texaphyrin prepn., metallotexaphyrin chem., their use as PDT agents and their use as MRI detectable ***radiation*** enhancers.

RE.CNT 161 THERE ARE 161 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 27 CA COPYRIGHT 2002 ACS

AN 135:285062 CA

TI Probing the reactivity of the ***radiation*** sensitizer motexafin gadolinium (Xcytrin) and a series of lanthanide(III) analogues in the presence of both hydroxyl radicals and aqueous electrons

AU ***Sessler, Jonathan L.*** ; Tvermoes, Nicolai A.; Guldi, Dirk M.; Mody, Tarak D.

CS Department of Chemistry and Biochemistry, University of Texas at Austin, Austin, TX, 78712, USA

SO Journal of Porphyrins and Phthalocyanines (2001), 5(7), 593-599

CODEN: JPPHFZ; ISSN: 1088-4246

PB John Wiley & Sons Ltd.

DT Journal

LA English

AB The competition of the ***radiation*** sensitizer motexafin gadolinium (Xcytrin, gadolinium(III) texaphyrin) and several other water-sol. metallotexaphyrin complexes with N,N,N',N'-tetramethyl-p-phenylenediamine (TMPD) for solvated electrons and hydroxyl radicals was studied using pulse radiolysis and by steady-state .gamma.-radiolysis. It was found that the one-electron reduced forms (M-Tex.bul.+) of the Gd(III), Eu(III), Dy(III), Yb(III), and Cd(II) texaphyrin complexes, after an initial reaction with hydrated electrons, do not compete with TMPD for hydroxyl radicals formed under pulse radiolytic conditions. By contrast, the reduced Y(III), In(III), Tm(III), and Lu(III) texaphyrin complexes do. These differences in competitive reactivity toward OH are rationalized in terms of the relative rates of protonation of the various singly reduced

texaphyrins. In the case of Gd-Tex2+ in particular, the one-electron reduced product, Gd-Tex.bul., protonates rapidly, producing a redox-inactive species that does not react appreciably with OH. By contrast, the one-electron reduced product from, e.g., Lu-Tex2+ (motexafin lutetium), does. These results may explain, at least in part, why the Gd(III) texaphyrin functions as a ***radiation*** sensitizer in vivo, while the analogous Lu(III) complex does not.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 27 CA COPYRIGHT 2002 ACS

AN 134:357565 CA

TI Methods and compositions for treating atheroma, tumors and other neoplastic tissue

IN ***Sessler, Jonathan L.*** ; Madga, Darren

PA Pharmacyclics, Inc., USA; The University of Texas System

SO PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001032210	A2	20010510	WO 2000-US29515	20001027
WO 2001032210	A3	20020207		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-430505 A2 19991029

AB The ***radiation*** sensitization potential of a candidate compd. can be screened by detg. its ability to generate one or more reactive oxygen species under appropriate conditions. Comps. detd. to have ***radiation*** sensitization potential are employed in methods for treating atheroma, tumors and other neoplastic tissue as well as other conditions that are typically responsive to ***radiation*** sensitization. Cytotoxic effect of gadolinium complex of texaphyrin and ionizing ***radiation***, with and without L-buthionine sulfoximine

cultured MES-SA human uterine cells was studied. A tablet contained active ingredients 25.0, microcryst. cellulose 200.0, colloidal silicone dioxide 10.0, and stearic acid 5.0 mg.

L3 ANSWER 4 OF 27 CA COPYRIGHT 2002 ACS

AN 134:277412 CA

TI Texaphyrins: a new approach to drug development

AU Mody, Tarak D.; ***Sessler, Jonathan L.***

CS Pharmacyclics, Inc., Sunnyvale, CA, 94085, USA

SO Journal of Porphyrins and Phthalocyanines (2001), 5(2), 134-142

CODEN: JPPHFZ; ISSN: 1088-4246

PB John Wiley & Sons Ltd.

DT Journal; General Review

LA English

AB A review with 88 refs. The texaphyrins are prototypical metal-coordinating expanded porphyrins. They represent a burgeoning class of pharmacol. agents that show promise for an array of medical applications. Currently, two different water-sol. lanthanide texaphyrins, namely motexafin gadolinium (Gd-TeX, 1) and motexafin lutetium (Lu-TeX, 2), are involved in multi-center clin. trials for a variety of indications. The first of these agents, XCYTRIN (motexafin gadolinium) injection, is being evaluated as a potential X-ray ***radiation*** enhancer in a randomized Phase III clin. trial in patients with brain metastases. The second, in various formulations, is being evaluated as a photosensitizer for use in: (i) the photodynamic treatment of recurrent breast cancer (LUTRIN Injection; now in Phase IIb clin. trials); (ii) photoangioplastic redn. of atherosclerosis involving peripheral and coronary arteries (ANTRIN Injection; now in Phase II and Phase I clin. trials, resp.); and (iii) light-based age-related macular degeneration (OPTRIN Injection; currently under Phase II clin. evaluation), a vision-threatening disease of the retina. In this article, these developments, along with fundamental aspects of the underlying chem. are reviewed.

RE.CNT 88 THERE ARE 88 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 27 CA COPYRIGHT 2002 ACS

AN 134:233649 CA

TI Pulse Radiolytic Studies of Metallotexaphyrins in the Presence of Oxygen: Relevance of the Equilibrium with Superoxide Anion to the Mechanism of Action of the ***Radiation*** Sensitizer Motexafin Gadolinium (Gd-TeX²⁺, Xcytrin)

AU ***Sessler, Jonathan L.*** ; Tvermoes, Nicolai A.; Guldi, Dirk M.; Hug,

Gordon L.; Mody, Tarak D.; Magda, Darren
 CS Department of Chemistry and Biochemistry, University of Texas, Austin, TX,
 78712, USA
 SO Journal of Physical Chemistry B (2001), 105(7), 1452-1457
 CODEN: JPCBFK; ISSN: 1089-5647
 PB American Chemical Society
 DT Journal
 LA English
 AB Pulse radiolytic studies of aq. solns. of 4 representative
 metallotetraphyrin complexes M-Tex²⁺ (M = Gd(III), Lu(III), Dy(III), and
 Y(III)), carried out in the presence of either dioxygen, or
 trimethyl-p-benzoquinone (TMQ). All 4 of these M-Tex²⁺ species set up an
 equil. with superoxide and the singly reduced TMQ (TMQ.bul.-) on the pulse
 radiolytic time scale. Rate consts. for the forward (k₁) and back (k₋₁)
 reactions of Gd-Tex²⁺ with superoxide anions, at pH 8.5, were detd. to be
 9.8 .times. 10⁶ M⁻¹ s⁻¹ and 3.4 .times. 10⁶ M⁻¹ s⁻¹, resp. For reaction
 with TMQ.bul.-, the analogous rate consts. were found to be 1.5 .times.
 10⁷ M⁻¹ s⁻¹ and 3.7 .times. 10⁶ M⁻¹ s⁻¹, resp. Equil. consts. (K_{kin}),
 calcd. from these kinetic parameters, were 2.9 and 4.1 for Gd-Tex²⁺
 reacting with O₂.bul.- (to produce Gd-Tex.bul.+ and O₂) and TMQ.bul.- (to
 produce Gd-Tex.bul.+ and TMQ), resp. Equil. consts. for the M-Tex²⁺
 species reacting with O₂.bul.- and TMQ.bul.- were also detd. from anal. of
 the absorption following establishment of the equil. The resulting values
 for Gd-Tex²⁺ were found to be 6.8 and 10.7, resp. From these equil.
 consts., the redox potential for the M-Tex²⁺/M-Tex.bul.+ couples at pH 8.5
 were estd. to be ca. -110 mV vs NHE in the case of Gd-Tex²⁺.
 RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 27 CA COPYRIGHT 2002 ACS
 AN 133:234470 CA
 TI Expanded porphyrins. Synthetic materials with potential medical utility
 AU ***Sessler, Jonathan L.*** ; Tvermoes, Nicolai A.; Davis, Julian;
 Anzenbacher, Pavel, Jr.; Jursikov, Karolina; Sato, Wataru; Seidel, Daniel;
 Lynch, Vincent; Black, Chris B.; Try, Andrew; Andrioletti, Bruno; Hemmi,
 Greg; Mody, Tarak D.; Magda, Darren J.; Kral, Vladimir
 CS Dep. Chem. & Biochem., Inst. Cellular Mol. Biol., The Univ. Texas at
 Austin, Austin, TX, 78712, USA
 SO Pure and Applied Chemistry (1999), 71(11), 2009-2018
 CODEN: PACHAS; ISSN: 0033-4545
 PB Blackwell Science Ltd.
 DT Journal; General Review
 LA English

AB A review with 40 refs. A no. of arom. and nonarom. expanded porphyrins have been prep'd. in the authors' labs. These are allowing a no. of important themes to be explored, including the construction of novel cation- and anion-complexing agents and the generations of drug candidates with considerable therapeutic potential. In this paper, the use of gadolinium (III) and lutetium (III) texaphyrin derivs. as, resp., adjuvants for X-ray ***radiation*** cancer therapy and photosensitizers for use in photodynamic treatments of cancer, atheromatous plaque, and age-related macular degeneration will be reviewed. Also discussed are the use of water sol. sapphyrins as potential fluorescent phosphate sensors and org. sol. 2,3-dipyrrylquinoxaline derivs. as possible fluoride anion signaling agents. Recent synthetic work, designed to produce expanded porphyrins with new shapes and novel topologies, is also summarized.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 27 CA COPYRIGHT 2002 ACS

AN 132:248011 CA

TI Texaphyrins. New drugs with diverse clinical applications in
radiation and photodynamic therapy

AU ***Sessler, J. L.*** ; Miller, R. A.

CS Department of Chemistry & Biochemistry, University of Texas, Austin, TX,
USA

SO Biochemical Pharmacology (2000), 59(7), 733-739

CODEN: BCPA6; ISSN: 0006-2952

PB Elsevier Science Inc.

DT Journal; General Review

LA English

AB A review with 42 refs. The texaphyrins are quintessential metal-coordinating expanded porphyrins constitute a new series of synthetic porphyrin analogs that show promise as drugs for use in a range of medical therapies. Currently, two different water-solubilized lanthanide(III) texaphyrin complexes, namely the gadolinium(III) and lutetium(III) derivs. 1 and 2 (Gd-Tex and Lu-Tex, resp.), are being tested clin. The first of these, XCYTRIN, is in a pivotal Phase III clin. trial as a potential enhancer of ***radiation*** therapy for patients with metastatic cancers to the brain receiving whole brain ***radiation*** therapy. The second, in various formulations, is being tested as a photosensitizer for use in: (i) the photodynamic treatment of recurrent breast cancer LUTRIN; Phase II clin. trials complete, (ii) photoangioplastic redn. of atherosclerosis involving peripheral arteries ANTRIN; now in Phase II testing, and (iii) light-based treatment of

age-related macular degeneration OPTRIN; currently in Phase I clin. trials, a vision-threatening disease of the retina. Taken in concert, these two metallotexaphyrins provide a powerful new class of exptl. drugs whose diverse potential utility is abetted by a combination of well-optimized phys. features, favorable tissue biolocalization characteristics, and novel mechanisms of action. Interestingly, these mechanisms may alter conventional wisdom regarding mechanisms of ***radiation*** therapy and the pathophysiol. of atherosclerosis.

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 27 CA COPYRIGHT 2002 ACS

AN 132:233602 CA

TI Porphyrin- and expanded porphyrin-based diagnostic and therapeutic agents

AU Mody, Tarak D.; ***Sessler, Jonathan L.***

CS Pharmacyclics Inc., Sunnyvale, CA, 94086, USA

SO Perspectives in Supramolecular Chemistry (1999), 4(Supramolecular Materials and Technologies), 245-294

CODEN: PSCHFN; ISSN: 1521-1525

PB John Wiley & Sons Ltd.

DT Journal; General Review

LA English

AB A review with 321 refs. on texaphyrins as tumor-selective MRI enhancing agents and photodynamic and X-ray ***radiation*** therapy sensitizers.

RE.CNT 324 THERE ARE 324 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 27 CA COPYRIGHT 2002 ACS

AN 132:148540 CA

TI In vivo animal studies with gadolinium(III) texaphyrin as a ***radiation*** enhancer

AU Miller, R. A.; Woodburn, K.; Fan, Q.; Renschler, M. F.; ***Sessler, J.***
*** L.*** ; Koutcher, J. A.

CS Pharmacyclics, Inc., Sunnyvale, CA, USA

SO International Journal of Radiation Oncology, Biology, Physics (1999), 45(4), 981-989

CODEN: IOBPD3; ISSN: 0360-3016

PB Elsevier Science Inc.

DT Journal

LA English

AB Gd texaphyrin (Gd-Tex, PCI-0120) is an expanded porphyrin that has demonstrated ***radiation*** enhancement. In this study, the authors evaluated the ***radiation*** enhancement and biolocalization of

Gd-Tex in 3 animal tumor models. Methods and. EMT6, SMT-F, and MCa tumors were established i.m. or s.c. Gd-Tex and other metallotexaphyrins were administered prior to single or multiple fractions of ***radiation***. 14C-labeled Gd-Tex was used for biolocalization studies. Gd-Tex, in combination with ***radiation***, produced significant tumor growth delay compared to irradiated control groups in both single and multifraction ***radiation*** studies. Gd-Tex ***radiation*** enhancement was obsd. only when the drug was given before, but not after irradiation. Several metallotexaphyrins, identical except for the metal ion, were studied in the EMT6 tumor model including Gd, Lu, Eu, Y, and Cd texaphyrin complexes. Only Gd-Tex produced ***radiation*** enhancement. Biodistribution studies using 14C-labeled Gd-Tex demonstrated drug selectivity and retention in tumors growing i.m. compared to uninvolved muscle and plasma. Gd-Tex produces reproducible ***radiation*** enhancement in a variety of in vivo tumor models. This drug's unique radiochem., tumor selectivity, and in vivo activity suggests possible mechanisms of action not addressed by in vitro assay methods.

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 27 CA COPYRIGHT 2002 ACS

AN 132:29966 CA

TI Texaphyrin-chemotherapeutic conjugates and their pharmaceutical formulations for chemotherapy, ***radiation*** sensitization, photodynamic therapy, sonodynamic therapy, and as antiatherosclerotics

IN ***Sessler, Jonathan L.*** ; Magda, Darren; Mody, Tarak; Anzenbacher, Pavel; Carvalho, Joan

PA Board of Regents, the University of Texas System, USA; Pharmacyclics, Inc.

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9962551	A1	19991209	WO 1999-US12614	19990604

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,

ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 AU 9942321 A1 19991220 AU 1999-42321 19990604
 EP 1082138 A1 20010314 EP 1999-926172 19990604
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI
 US 6207660 B1 20010327 US 1999-325890 19990604
 JP 2002516878 T2 20020611 JP 2000-551806 19990604
 NO 2000006155 A 20010202 NO 2000-6155 20001204
 PRAI US 1998-88214P P 19980605
 WO 1999-US12614 W 19990604
 OS MARPAT 132:29966
 AB Provided are texaphyrin-chemotherapeutic drug conjugates, optionally
 including a Pt(II) or Pt(IV) metal chelating site and/or complex, which
 are useful for treating atheroma, tumors and other neoplastic tissue,
 neovascular-related diseases, as well as other conditions that are
 typically responsive to chemotherapy, ***radiation*** sensitization,
 photodynamic therapy, and sonodynamic therapy. Preferred chemotherapeutic
 agents may be selected from a taxoid, a nucleotide, an antibiotic, or a
 platinum coordination complex, or more specifically, selected from
 bleomycin, doxorubicin, taxol, taxotere, etoposide, 4-
 hydroxycyclophosphamide, 5-fluorocil, cisplatin, or cisplatin analogs.
 The texaphyrin-chemotherapeutic agents are represented by formulas Iz+ or
 II (Z = 0-5, M = H, di- or trivalent metal cation, R1-R4 and R6-R9 = H,
 halo (but not iodo), OH, alkyl, alkenyl, aryl, catalytic group,
 chemotherapeutic agent, Pt chelating site, etc., R5 and R10-R12 = H,
 alkyl, alkenyl, aryl, halo (but not iodo), hydroxyalkyl, etc., with
 provisos concerning their steric size relative to other R groups) their
 pharmaceutical salts and formulations (1 example). Example conjugates
 show cytotoxic activity.
 RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT
 L3 ANSWER 11 OF 27 CA COPYRIGHT 2002 ACS
 AN 131:294770 CA
 TI Texaphyrins having pendants containing imidazole as ***radiation***
 sensitizers
 IN ***Sessler, Jonathan L.*** ; Hemmi, Gregory W.; Mody, Tarak D.; Magda,
 Darren; Kral, Vladimir A.
 PA Board of Regents, the University of Texas System, USA; Pharmacyclics, Inc.
 SO U.S., 46 pp., Cont.-in-part of U. S. Ser. No. 437,968.
 CODEN: USXXAM
 DT Patent

LA English

FAN.CNT 21

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5969111	A	19991019	US 1997-775261	19970204
US 5559207	A	19960924	US 1994-227370	19940414
WO 9429316	A2	19941222	WO 1994-US6284	19940609
WO 9429316	A3	19950202		
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
WO 9510307	A1	19950420	WO 1994-US11491	19941012
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5622946	A	19970422	US 1995-437968	19950510
PRAI US 1994-227370	A2	19940414		
WO 1994-US6284	A1	19940609		
WO 1994-US11491	A1	19941012		
US 1995-437968	A2	19950510		
US 1995-452261	B2	19950526		
US 1989-320293	A3	19890306		
US 1990-539975	A2	19900618		
US 1991-771393	B2	19910930		
US 1992-822964	A2	19920121		
US 1993-75123	B2	19930609		
US 1993-135118	A	19931012		
OS MARPAT 131:294770				
AB I (where each R1, R2, R3, R4, R7 and R8 is independently H, OH, alkyl, hydroxyalkyl, oxyalkyl, oxyhydroxyalkyl, saccharide, oxyaminoalkyl, carboxy, carboxyalkyl, carboxyamidealkyl, a site-directing mol., imidazole or a couple to a site-directing mol. or to imidazole) as their transition metal and rare earth complexes are claimed and can be used as ***radiation*** sensitizers for human carcinoma cells. For example, the Gd and Lu complexes of I (R1 = CH ₂ CH ₂ CH ₂ OH, R2 = R3 = Et, R4 = Me, R7 = R8 = OCH ₂ HC(=O)CH ₂ CH ₂ OCH ₂ CH ₂ OMe) were prepd. and the ***radiation*** sensitization of HT-29 cells by these complexes was studied.				
RE.CNT 177 THERE ARE 177 CITED REFERENCES AVAILABLE FOR THIS RECORD				

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 27 CA COPYRIGHT 2002 ACS

AN 131:222611 CA

TI Preparation of highly boronated derivatives of expanded porphyrins
(texaphyrins) for potential use in boron neutron capture therapy and
related applications

IN ***Sessler, Jonathan L.*** ; Allen, William E.; Kral, Vladimir A.

PA USA

SO U.S., 16 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
PI US 5955586	A	19990921	US 1997-821272	19970320
PRAI US 1996-13872P	P	19960322		
OS MARPAT 131:222611				

AB The present invention is directed to highly boronated derivs. of expanded porphyrins, and more particularly to expanded porphyrins substituted with carborane clusters, e.g., gadolinium texaphyrin o-carborane deriv. I. Highly boronated texaphyrin derivs. are claimed, and discussions include highly boronated sapphyrin derivs. as well. The carborane-substituted texaphyrins may be metalated with Y(III), Lu(III), Gd(III), Eu(III), Dy(III), and Tb(III). Such compns. are potentially useful in boron neutron capture therapy, ***radiation*** therapy, photodynamic therapy, and other applications.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 27 CA COPYRIGHT 2002 ACS

AN 130:264132 CA

TI ***Radiation*** sensitization using texaphyrins

IN ***Sessler, Jonathan L.*** ; Harriman, Anthony; Miller, Richard A.;

Magda, Darren; Mody, Tarak D.; Hemmi, Gregory W.

PA Pharmacyclics, Inc., USA; Board of Regents, the University of Texas System

SO U.S., 43 pp., Cont.-in-part of U.S. 5,622,946.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 21

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 PI US 5888997 A 19990330 US 1997-795393 19970204
 US 5559207 A 19960924 US 1994-227370 19940414
 US 5622946 A 19970422 US 1995-437968 19950510
 US 6072038 A 20000606 US 1998-104870 19980625

PRAI US 1994-227370 A2 19940414

US 1995-437968 A2 19950510
 US 1995-452261 B2 19950526
 US 1989-320293 A3 19890306
 US 1990-539975 A2 19900618
 US 1991-771393 B2 19910930
 US 1992-822964 A2 19920121
 US 1993-75123 B2 19930609
 US 1993-135118 A2 19931012
 US 1995-227370 A2 19940414
 WO 1994-US6284 A1 19940609
 WO 1994-US11491 A1 19941012
 US 1997-795393 A1 19970204

OS MARPAT 130:264132

AB The invention relates to the field of ***radiation*** sensitizers and the use of texaphyrins for ***radiation*** sensitization and other conditions for which X-ray ***radiation*** has proven to be therapeutic.

RE.CNT 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 27 CA COPYRIGHT 2002 ACS

AN 130:244277 CA

TI One-Electron Reduction and Oxidation Studies of the ***Radiation*** Sensitizer Gadolinium(III) Texaphyrin (PCI-0120) and Other Water Soluble Metallotexaphyrins

AU ***Sessler, Jonathan L.*** ; Tvermoes, Nicolai A.; Guldi, Dirk M.; Mody, Tarak D.; Allen, William E.

CS Department of Chemistry and Biochemistry, University of Texas at Austin, Austin, TX, 78712, USA

SO Journal of Physical Chemistry A (1999), 103(7), 787-794
 CODEN: JPCAFH; ISSN: 1089-5639

PB American Chemical Society

DT Journal

LA English

AB The ***radiation*** sensitizer gadolinium(III) texaphyrin (XYTRIN; PCI-0120; Gd-Tex2+) and several other water sol. metallotexaphyrin complexes were prep'd. and studied using pulse radiolysis. All of the

metallotexaphyrins were found to react with solvated electrons and hydroxyl radicals, yielding the corresponding one-electron reduced and oxidized metallotexaphyrins, resp. The rates of the redn. processes range from 3.7 .times. 10¹⁰ to 6.8 .times. 10¹⁰ M⁻¹s⁻¹ (.+-10%), while those involving oxidn. range from 2.5 .times. 10⁹ to 7.4 .times. 10⁹ M⁻¹s⁻¹ (.+-10%). The spectral characteristics of the transformed metallotexaphyrins produced by these reactions, e.g., a broad absorption band with a λ_{max} centered around 830 nm, are consistent with ligand-centered redox processes. Reaction of the metallotexaphyrins with solvated electrons affords species which exhibit metal dependent behavior. In the absence of hydroxyl radicals, the decay of the reduced metallotexaphyrins produced by reaction with electrons involves an initial protonation event followed by either a dimerization process or a disproportionation step. These latter transformations are followed by a second protonation event.

RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 27 CA COPYRIGHT 2002 ACS

AN 126:327558 CA

TI ***Radiation*** sensitization using texaphyrins for treatment of neoplasms or atheromas

IN ***Sessler, Jonathan L.*** ; Harriman, Anthony M.; Miller, Richard A.

PA Pharmacyclics, Inc., USA; Board of Regents, Univ. of Tex. Sys.

SO U.S., 39 pp., Cont.-in-part of U.S. 5,457,183.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 21

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 5622946	A	19970422	US 1995-437968	19950510
	US 5457183	A	19951010	US 1993-135118	19931012
	US 5583220	A	19961210	US 1995-449681	19950524
	US 5580543	A	19961203	US 1995-458267	19950602
	US 5587371	A	19961224	US 1995-458909	19950602
	US 5632970	A	19970527	US 1995-486967	19950607
	US 5801229	A	19980901	US 1996-713701	19960913
	US 5888997	A	19990330	US 1997-795393	19970204
	US 5969111	A	19991019	US 1997-775261	19970204
	US 6069140	A	20000530	US 1997-970864	19971114
	US 6072038	A	20000606	US 1998-104870	19980625
PRAI	US 1993-135118	A2	19931012		

US 1989-320293 A3 19890306
 US 1990-539975 A2 19900618
 US 1991-771393 B2 19910930
 US 1992-822064 A2 19920121
 US 1992-822964 A2 19920121
 US 1993-75123 B2 19930609
 US 1993-98514 A1 19930728
 US 1994-227370 A2 19940414
 US 1995-227370 A2 19940414
 WO 1994-US6284 A1 19940609
 WO 1994-US11491 A1 19941012
 US 1995-437968 A3 19950510
 US 1995-452261 B2 19950526
 US 1996-679162 A2 19960710
 US 1996-713701 A1 19960913
 US 1997-795393 A1 19970204

OS MARPAT 126:327558

AB Texaphyrins are provided for use as ***radiation*** sensitizers.

Advantageous properties of texaphyrins for use as a ***radiation*** sensitizer include: (1) a low redox potential, which allows

radiation -induced hydrated electrons to flow to texaphyrin rather than neutralizing hydroxyl radicals, allowing hydroxyl radicals to cause cellular damage; (2) a relatively stable texaphyrin radical that reacts readily to covalently modify neighboring mols., causing further cellular damage; (3) intrinsic biolocalization; and (4) indifference to the presence or absence of O₂. These properties allow texaphyrins to be particularly effective for treating the hypoxic areas of solid neoplasms. Methods of treatment for an individual having a neoplasm or atheroma include the use of a texaphyrin as a ***radiation*** sensitizer and as an agent for photodynamic tumor therapy, or the use of a texaphyrin for internal and for external ionizing ***radiation***. Novel texaphyrins are provided.

L3 ANSWER 16 OF 27 CA COPYRIGHT 2002 ACS

AN 126:199378 CA

TI Solution phase and single-crystal diffraction x-ray analyses of diprotonated porphyrin isomers - etioporphyrin, etioporphycene, and etiocorrphycene bishydroperchlorate salts

AU ***Sessler, Jonathan L.*** ; Brucker, Eric A.; Lynch, Vincent; Choe, Michael; Sorey, Steven; Vogel, Emanuel

CS Dep.of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX, 78712, USA

SO Chemistry--A European Journal (1996), 2(12), 1527-1532 Published in:

Angew. Chem., Int. Ed. Engl., 35(23/24)

CODEN: CEUJED; ISSN: 0947-6539

PB VCH

DT Journal

LA English

AB The diprotonated, bishydroperchlorate forms of three isomeric .beta.-octaalkyl-substituted tetrapyrrolic macrocycles, namely, etioporphyrin II (I), etioporphycene (II), and etiocorrphycene (III), have been characterized both in chloroform soln., by UV/visible spectroscopy and ¹H and proton-correlated 2D ¹⁵N NMR methods, and in the solid state, by single-crystal x-ray diffraction analyses. In the solid state, in marked contradistinction to what is obsd. for the corresponding free-base forms, the macrocyclic portion of these salts were found to be distorted significantly from planarity with the two perchlorate counteranions being held above and below the av. N₄ plane by N-H.cntdot.cntdot.cntdot.O hydrogen bonds in all three cases. In soln., ¹H and proton-correlated 2D ¹⁵N NMR expts. reveal mol. ions of relatively high symmetry [D_{2h}, D_{2h}, and C_{2v} in the case of I.cntdot.(HClO₄)₂, II.cntdot.(HClO₄)₂, and III.cntdot.(HClO₄)₂, resp.] as would be anticipated on the basis of the solid-state results. These same NMR analyses, while revealing slight differences between the three salts in the NH and meso ¹H NMR spectral regions, also serve to confirm the generalized congeneric nature of I.cntdot.(HClO₄)₂, II.cntdot.(HClO₄)₂, and III.cntdot.(HClO₄)₂ and support the assignment of the latter two species as being porphyrin-like salts. UV/vis analyses further support this conclusion; in all three instances, strong Soret- and Q-like transitions are obsd. in dichloromethane that are both distinct from each other (.lambda.max = 404, 549, 570, 593; 388, 409, 599, 666; and 419, 559, 604 for I.cntdot.(HClO₄)₂, II.cntdot.(HClO₄)₂, and III.cntdot.(HClO₄)₂, resp.) and from those of the corresponding free-base forms (.lambda.max = 396, 496, 530, 565, 619; 382, 570, 617, 657; and 410, 509, 539, 574, 628 for I, II, and III resp.). Protonation expts. were carried out by exposing dichloromethane solns. of the isomers to aq. perchlorate/perchloric acid solns. of differing pH. These studies reveal that while porphycene II adds two protons readily and concurrently, becoming 50% diprotonated when exposed to perchlorate/perchloric solns. with a pH of around 3.6, porphyrin I and corrphycene III are protonated in a stepwise manner; they become 50% monoprotonated when exposed to perchlorate/perchloric solns. of pH .apprxeq. 3.7 and 3.9, resp., and diprotonated at pH .ltoreq. 0.8 and 1.3, resp.

L3 ANSWER 17 OF 27 CA COPYRIGHT 2002 ACS

AN 126:165788 CA

TI Texaphyrin metal complexes having improved functionalization

IN ***Sessler, Jonathan L.*** ; Mody, Tarak D.; Hemmi, Gregory W.

PA University of Texas, USA; Pharmacyclics, Inc.

SO U.S., 32 pp., Cont.-in-part of U.S. Ser. No. 98, 514.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 21

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5599923	A	19970204	US 1994-196964	19940215
US 4935498	A	19900619	US 1989-320293	19890306
US 5162509	A	19921110	US 1990-539975	19900618
US 5252720	A	19931012	US 1992-822964	19920121
US 5569759	A	19961029	US 1993-98514	19930728
US 5457183	A	19951010	US 1993-135118	19931012
CA 2182960	AA	19950817	CA 1995-2182960	19950215
WO 9521845	A1	19950817	WO 1995-US1996	19950215
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UG				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9519217	A1	19950829	AU 1995-19217	19950215
AU 688008	B2	19980305		
EP 745085	A1	19961204	EP 1995-911776	19950215
EP 745085	B1	20020522		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10500659	T2	19980120	JP 1995-521434	19950215
US 5599928	A	19970204	US 1995-459333	19950602
US 5733903	A	19980331	US 1996-679162	19960710
NO 9603396	A	19961014	NO 1996-3396	19960814
PRAI US 1989-320293	A3	19890306		
US 1990-539975	A2	19900618		
US 1991-771393	B2	19910930		
US 1992-822964	A2	19920121		
US 1993-98514	A2	19930728		
US 1993-135118	A2	19931012		
US 1993-75123	B2	19930609		
US 1994-196964	A	19940215		
WO 1995-US1996	W	19950215		
OS	MARPAT 126:165788			

AB Texaphyrin metal complexes I [M = H, divalent, trivalent cation; R1-R4, R6-R9 = H, halide, (un)substituted alkyl, aryl, NO₂, acyl, (un)substituted CO₂H, sapphyrin, linker-bonded sapphyrin; R5, R10-R12 = H, (un)substituted alkyl, aryl; n = .ltoreq.5], having improved functionalization including electron donating groups at positions 12, 15, 18 and/or 21 and/or the electron withdrawing groups at positions 15 or 18 are claimed. Electron donating groups contribute electrons to the arom. .pi. system of the macrocycle which stabilizes the metal complex to demetalation and the imine bonds to hydrolysis, making these texaphyrin metal complexes useful for localization, magnetic resonance imaging, radiosensitization, ***radiation*** therapy, fluorescence imaging, photodynamic tumor therapy and applications requiring singlet oxygen prodn. for cytotoxicity. Electron withdrawing groups at positions 15 or 18 render the macrocycle more readily reduced, i.e. the redox potential is lower and the macrocycle more readily gains an electron to form a radical. Such texaphyrins having a low redox potential are useful for radiosensitization applications. The prepn. of an intermediate bis(pyrrolylmethyl)pyrrole is reported.

L3 ANSWER 18 OF 27 CA COPYRIGHT 2002 ACS

AN 126:154555 CA

TI Texaphyrin complexes having improved functionalization

IN Hemmi, Gregory W.; ***Sessler, Jonathan L.*** ; Mody, Tarak D.

PA Pharmacyclics, Inc., USA; Board of Regents, the University of Texas System

SO U.S., 30 pp., Cont. of U.S. Ser. No. 459,333.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 21

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5591422	A	19970107	US 1995-468209	19950606
	US 5599928	A	19970204	US 1995-459333	19950602
PRAI	US 1995-459333	A1	19950602		
	US 1994-196964	A2	19940215		

AB Texaphyrin metal complexes having improved functionalization include the addn. of electron-donating groups to positions 2, 7, 12, 15, 18 and/or 21 and/or the addn. of electron-withdrawing groups to positions 15 and/or 18 of the macrocycle. Electron-donating groups at positions 2, 7, 12, 15, 18 and/or 21 contribute electrons to the arom. .pi. system of the macrocycle which stabilizes the metal complex to demetallation and the imine bonds to hydrolysis. These texaphyrin metal complexes having enhanced stability are useful for localization, radiosensitization and ***radiation*** therapy. Electron-withdrawing groups at positions 15 and/or 18 render the